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REMARKS/ARGUMENTS

In the Office Action mailed April 17, 2007 (hereinafter, "Office Action"), the Office Action rejected claims 1-16, 18-36, 38-56 and 58-60 under 35 U.S.C. § 103(a). Claims 1, 10, 21, 30, 41 and 50 have been amended.

Applicants respectfully respond to the Office Action.

I. **Rejection of Claims 1-9, 21-29 and 41-49 under 35 U.S.C. § 103**

The Office Action rejected claims 1-9, 21-29 and 41-49 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,643,520 to Park et al. (hereinafter, "Park") in view of U.S. Patent Publication No. 2004/0121808 to Hen et al. (hereinafter, "Hen"). This rejection is respectfully traversed.

The factual inquiries that are relevant in the determination of obviousness are determining the scope and contents of the prior art, ascertaining the differences between the prior art and the claims in issue, resolving the level of ordinary skill in the art, and evaluating evidence of secondary consideration. KSR Int'l Co. v. Teleflex Inc., 550 U.S. ___, 2007 U.S. LEXIS 4745, at **4-5 (2007) (citing Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17-18 (1966)). To establish a *prima facie* case of obviousness, the prior art references "must teach or suggest all the claim limitations." M.P.E.P. § 2142. Moreover, the analysis in support of an obviousness rejection "should be made explicit." KSR, 2007 U.S. LEXIS 4745, at **37. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." Id. (citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Applicants respectfully submit that the claims at issue are patentably distinct from Park and Hen. Park and Hen do not teach or suggest all of the limitations in these claims.

Claim 1 has been amended to recite "wherein the chip energy of the channels of the access terminal for which the effective noise power spectral density ... is determined is not used in determining the effective noise power spectral density." Support for this amendment may be found in Applicants' specification, for example, page 5, equation (3) and page 6, paragraph [0024]. Park, alone or in combination with Hen, does not teach or suggest this claim element.

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Park states:

> Referring to FIG. 10, the base station receives a reverse link pilot channel signal in step 1012 and measures the received power of the reverse link pilot channel signal in step 1014. Upon receiving an access channel message including the transmission power of the reverse link pilot channel from the mobile station in step 1016, the base station checks the transmission power value of the reverse link pilot channel signal included in the access channel message in step 1018. Then, the base station subtracts the received power of the reverse link pilot channel signal from the transmission power of it to obtain an attenuated value of the reverse link pilot channel signal in step 1020.

Park, col. 9, lines 49-60.

The Office Action points to this passage of Park to support the assertion that "Park et al. teaches . . . determining an effective noise power spectral density." Office Action, page 3. However, "receiv[ing] a reverse link pilot channel signal . . . and measur[ing] the received power of the reverse link pilot channel signal" does not teach or suggest "wherein the chip energy of the channels of the access terminal for which the effective noise power spectral density . . . is determined is not used in determining the effective noise power spectral density." In fact, Park teaches the opposite because "the base station receives a reverse link pilot channel [and chip energy] . . . from the mobile station." Id.

Park also states:

> [W]herein N_0 represents noise spectral density; calculating a ratio $(E_c/Ior)\_traffic\_tx$ of the energy E_c per a new traffic channel chip to the total transmission power spectral density Ior from the calculated ratio of the desired base station signal to the interference and noise of the other base stations using a mapping table, and determining a traffic channel power gain.

Park, col. 13, lines 56-62.

The Office Action states that the above-cited passage of Park supports the assertion that "Park et al. teaches calculating the total power spectral density from the noise spectral . . . and the traffic chip energy." Office Action, page 3. "Calculating a ratio . . . of the energy E_c per a new traffic channel chip to the total transmission power spectral density" does not teach or suggest "wherein the chip energy of the channels of the access terminal for which the effective noise power spectral density . . . is determined is not used in determining the effective noise power spectral density."

The addition of Hen does not overcome the deficiencies of Park. The Office Action merely points to Hen to support the assertion that "Hen teaches a mobile communication system that determines a reverse activity bit (RAB)." Office Action, page 4. The Office Action does not point to, and Applicants cannot find, any teaching or suggestion by Hen of "the chip energy of the channels of the access terminal for which the effective noise power spectral density . . . is determined is not used in determining the effective noise power spectral density."

In view of the foregoing, Applicants respectfully submit that claim 1 is patentably distinct from Park and Hen, alone or in combination. Accordingly, Applicants respectfully request that the rejection of claim 1 be withdrawn because Park and Hen, alone or in combination, do not teach or suggest all of the claim elements of claim 1.

Claims 2-9 depend either directly or indirectly from claim 1. Accordingly, Applicants respectfully request that the rejection of claims 2-9 be withdrawn for the same reasons as those presented in connection with claim 1 because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 1.

Claim 21 has been amended with a similar element that was amended to claim 1. As such, Applicants submit that claim 21 is patentably distinct from Park and Hen, alone or in combination, for at least the same reasons as those presented above in connection with claim 1. Accordingly, Applicants respectfully request that the rejection of claim 21 be withdrawn because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 21.

Claims 22-29 depend either directly or indirectly from claim 21. Accordingly, Applicants respectfully request that the rejection of claims 22-29 be withdrawn for the same reasons as those presented in connection with claim 21 because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 21.

Claim 41 has been amended with a similar element that was amended to claim 1. As such, Applicants submit that claim 41 is patentably distinct from Park and Hen, alone or in combination, for at least the same reasons as those presented above in connection with claim 1. Accordingly, Applicants respectfully request that the rejection of claim 41 be withdrawn because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 41.

Claims 42-49 depend either directly or indirectly from claim 41. Accordingly, Applicants respectfully request that the rejection of claims 42-49 be withdrawn for the same reasons as those

presented in connection with claim 41 because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 41.

II. Rejection of Claims 10-14, 16, 18-20, 30-34, 36, 38-40, 50-54, 56 and 58-60 under 35 U.S.C. § 103

The Office Action rejected claims 10-14, 16, 18-20, 30-34, 36, 38-40, 50-54, 56 and 58-60 under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Hen. This rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claim 10 has been amended to recite "determining a noise power spectral density ($N_{t,i}$) at an access terminal (i), wherein chip energy of the channels of the access terminal (i) is not used in determining the noise power spectral density ($N_{t,i}$)." Support for this amendment may be found in Applicants' specification, for example, pages 4-5, paragraph [0017]. Park, alone or in combination with Hen, does not teach or suggest this claim element.

Park states:

> Referring to FIG. 10, the base station receives a reverse link pilot channel signal in step 1012 and measures the received power of the reverse link pilot channel signal in step 1014. Upon receiving an access channel message including the transmission power of the reverse link pilot channel from the mobile station in step 1016, the base station checks the transmission power value of the reverse link pilot channel signal included in the access channel message in step 1018. Then, the base station subtracts the received power of the reverse link pilot channel signal from the transmission power of it to obtain an attenuated value of the reverse link pilot channel signal in step 1020.

Park, col. 9, lines 49-60.

The Office Action points to this passage of Park to support the assertion that "Park et al. teaches . . . determining an effective noise power spectral density." Office Action, page 3. However, "receiv[ing] a reverse link pilot channel signal . . . and measur[ing] the received power of the reverse link pilot channel signal" does not teach or suggest "determining a noise power spectral density ($N_{t,i}$) at an access terminal (i), wherein chip energy of the channels of the access terminal (i) is not used in determining the noise power spectral density ($N_{t,i}$)." In fact, Park

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teaches the opposite because "the base station receives a reverse link pilot channel [and chip energy] . . . from the mobile station." Id.

Park also states:

> [W]herein N_0 represents noise spectral density; calculating a ratio $(E_c/Ior)\_traffic\_tx$ of the energy F_c per a new traffic channel chip to the total transmission power spectral density Ior from the calculated ratio of the desired base station signal to the interference and noise of the other base stations using a mapping table, and determining a traffic channel power gain.

Park, col. 13, lines 56-62.

The Office Action states that the above-cited passage of Park supports the assertion that "Park et al. teaches calculating the total power spectral density from the noise spectral . . . and the traffic chip energy." Office Action, page 3. "Calculating a ratio . . . of the energy F_c per a new traffic channel chip to the total transmission power spectral density" does not teach or suggest "determining a noise power spectral density $(N_{t,i})$ at an access terminal (i), wherein chip energy of the channels of the access terminal (i) is not used in determining the noise power spectral density $(N_{t,i})$."

The addition of Hen does not overcome the deficiencies of Park. The Office Action merely points to Hen to support the assertion that "Hen teaches a mobile communication system that determines a reverse activity bit (RAB)." Office Action, page 12. The Office Action does not point to, and Applicants cannot find, any teaching or suggestion by Hen of "determining a noise power spectral density $(N_{t,i})$ at an access terminal (i), wherein chip energy of the channels of the access terminal (i) is not used in determining the noise power spectral density $(N_{t,i})$."

In view of the foregoing, Applicants respectfully submit that claim 10 is patentably distinct from Park and Hen. Accordingly, Applicants respectfully request that the rejection of claim 10 be withdrawn because Park and Hen, alone or in combination, do not teach or suggest all of the claim elements of claim 10.

Claims 11-14, 16 and 18-20 depend either directly or indirectly from claim 10. Accordingly, Applicants respectfully request that the rejection of claims 11-14, 16 and 18-20 be withdrawn for the same reasons as those presented in connection with claim 10 because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 10.

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Claim 30 has been amended with a similar element that was amended to claim 10. As such, Applicants submit that claim 30 is patentably distinct from Park and Hen, alone or in combination, for at least the same reasons as those presented above in connection with claim 10. Accordingly, Applicants respectfully request that the rejection of claim 30 be withdrawn because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 30.

Claims 31-34, 36 and 38-40 depend either directly or indirectly from claim 30. Accordingly, Applicants respectfully request that the rejection of claims 31-34, 36 and 38-40 be withdrawn for the same reasons as those presented in connection with claim 30 because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 30.

Claim 50 has been amended with a similar element that was amended to claim 10. As such, Applicants submit that claim 50 is patentably distinct from Park and Hen, alone or in combination, for at least the same reasons as those presented above in connection with claim 10. Accordingly, Applicants respectfully request that the rejection of claim 50 be withdrawn because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 50.

Claims 51-54, 56 and 58-60 depend either directly or indirectly from claim 50. Accordingly, Applicants respectfully request that the rejection of claims 51-54, 56 and 58-60 be withdrawn for the same reasons as those presented in connection with claim 50 because Park and Hen, alone or in combination, do not teach or suggest all of the elements of claim 50.

III.   **Rejection of Claims 15, 35 and 55 under 35 U.S.C. § 103**

The Office Action rejected claims 15, 35 and 55 under 35 U.S.C. § 103(a) as being unpatentable over Park in view of Hen in further view of U.S. Patent No. 6,731,620 to Lim et al. (hereinafter, "Lim"). This rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. See M.P.E.P. § 2142.

Claims 15 depends directly from claim 10. Accordingly, Applicants respectfully request that the rejection of claim 15 be withdrawn for the same reasons as those presented in connection with claim 10 because Park, Hen and Lim, alone or in combination, do not teach or suggest all of the elements of claim 10.

Claims 35 depends directly from claim 30. Accordingly, Applicants respectfully request that the rejection of claim 35 be withdrawn for the same reasons as those presented in connection

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with claim 30 because Park, Hen and Lim, alone or in combination, do not teach or suggest all of the elements of claim 30.

Claims 55 depends directly from claim 50. Accordingly, Applicants respectfully request that the rejection of claim 55 be withdrawn for the same reasons as those presented in connection with claim 50 because Park, Hen and Lim, alone or in combination, do not teach or suggest all of the elements of claim 50.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: 8/17/2007
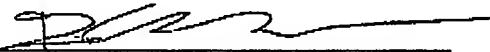
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